

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (original) A gas flow controller comprising:
a pressure-containing housing including a gas inlet, a gas outlet, an auxiliary chamber separated from the gas inlet by a partition wall and a valve arrangement adapted to be actuated to adjust flow from the gas inlet to the gas outlet in response to a differential pressure between the inlet and the auxiliary chamber; and
a servo pump in the housing and adapted to produce the differential pressure by pumping the gas from the auxiliary chamber to the gas inlet.
2. (original) A gas flow controller according to claim 1, wherein the servo pump is disposed on the partition wall.
3. (original) A gas flow controller according to claim 1, further comprising:
an overflow device that forms a permanent fluid connection between the auxiliary chamber and a channel at the inlet.
4. (original) A gas flow controller according to claim 3, wherein the overflow device includes at least one of: an opening provided on the partition wall and a channel provided on the servo pump.
5. (original) A gas flow controller according to claim 1, wherein the valve member is adapted to be actuated by a diaphragm adapted to actuate the valve member in response to the differential pressure between the gas inlet and the auxiliary chamber.
6. (original) A gas flow controller according to claim 1, wherein the valve arrangement includes at least two functionally separated valves arranged serially with respect to the flow of the gas.

7. (original) A gas flow controller according to claim 6, wherein the valve arrangement is disposed on the auxiliary chamber and the auxiliary chambers are in fluid connection via an opening.

8. (original) A gas flow controller according to claim 1, wherein the valve arrangement closes the connection between the gas inlet and the gas outlet in response to the differential pressure being less than a predetermined value.

9. (original) A gas flow controller according to claim 1, wherein the valve arrangement includes a valve member and a valve seat, the valve member configured and arranged to close the valve arrangement in response to pressure in the auxiliary chamber pressing the valve member onto the valve seat.

10. (original) A gas flow controller according to claim 9, further comprising:
a prestressing means configured and arranged to apply pressure to the valve member for pressing the valve member onto the valve seat for closing the valve arrangement.

11. (original) A gas flow controller according to claim 1, wherein the servo pump is an electrically operated pump.

12-20 (canceled)